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Revision 0

**TASK WORK PLAN  
FOR  
SEDIMENT SAMPLING**

**AT**

**ROY BROS HAULERS  
BILLERICA, MASSACHUSETTS**

CERCLIS No. MAD009870643  
TDD No. 95-06-0006


Submitted by:

Roy F. Weston, Inc.  
217 Middlesex Turnpike  
Burlington, Massachusetts 01803

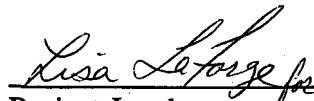
Submittal date: 17 November 1995

WESTON/START

Reviewed and Approved:

  
\_\_\_\_\_  
Site Leader

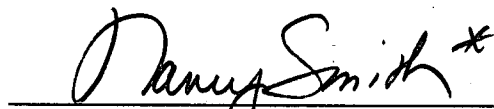
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Project Leader

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EPA REGION I

Reviewed and Approved:

  
\_\_\_\_\_  
Site Assessment Manager (SAM)

11-27-95  
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Date

\* see attached comments.

**Task Work Plan  
Roy Bros Haulers  
Billerica, Massachusetts**

**CERCLIS No. MAD009870643  
TDD No. 95-06-0006  
Work Order No. 11098-001-001-1055-30**

## **TASK SUMMARY**

### **DATE OF TASK**

On-site Reconnaissance - Completed 20 September 1995  
Sampling - Week of 4 December 1995

EPA Contact:	Nancy Smith	Phone No. (617) 573 - 9697
State Contact:	Chris Coolen	Phone No. (617) 932 - 7600
Nearest Phone:	WESTON Mobile	Phone No. (617) 966 - 8859 (START #1)

### **1.0 SITE DESCRIPTION**

#### **1.1 Location**

The Roy Bros Haulers property is located at 764 Boston Road in Billerica, Middlesex County, Massachusetts (Figure 1). The geographic coordinates of the property are the following: latitude 42°32'06" and longitude 71°14'09.5". The property, identified as Parcel 25 and 217 on plate 90 of the Billerica Assessor's office, slopes downward from the western edge of the property towards a marshy wetland area to the east. The Shawsheen River flows through the abutting wetland area. The area to the north is undeveloped. The land use south of the property is predominantly commercial. The property is located on the right side of Boston Road (Route 3A) approximately 1.2 miles north of the intersection of Route 62 and Boston Road.

#### **1.2 Site Description**

Roy Brothers Haulers (Roy Bros) is owned by Messrs. Leo, Arthur, and Maurice Roy. The 4.4 acre property consists of an active chemical hauling operation; sparsely vegetated areas of former hazardous waste disposal and burn areas; and tanker and scrap storage locations. One building is located on the property.

The building houses the Roy Bros offices, 2 truck rinsing bays, a garage bay for truck repairs, and the on-site waste treatment facilities. The waste treatment facilities consist of 2 holding tanks, 2 oil separators, a filtration tank, and a deionizing filter. The clamshell of a backhoe is used to catch the effluent sludge removed by deionizing filter and disposed of by a hazardous waste hauler. In the rinsing bays, floor drains collect the washwater and excess detergent and route it through the treatment process. Two fire cabinets containing 15 to 20, 1-gallon paint cans are located in the building. A temporary drum storage area is also located within the building. The current inventory of the storage area is as follows: three 55-gallon drums of methyl ethyl ketone, two 55-gallon drums of ethyl acetate, four 55-gallon drums of sulfuric acid,

and two 55-gallon drums of caustic potash. The drums are stored on wooden pallets on an impervious concrete floor under cover. Potential spills are contained by an impervious, two-inch wide trough. In the trough, the contents flow into the rinsing bays where it is directed through the treatment system.

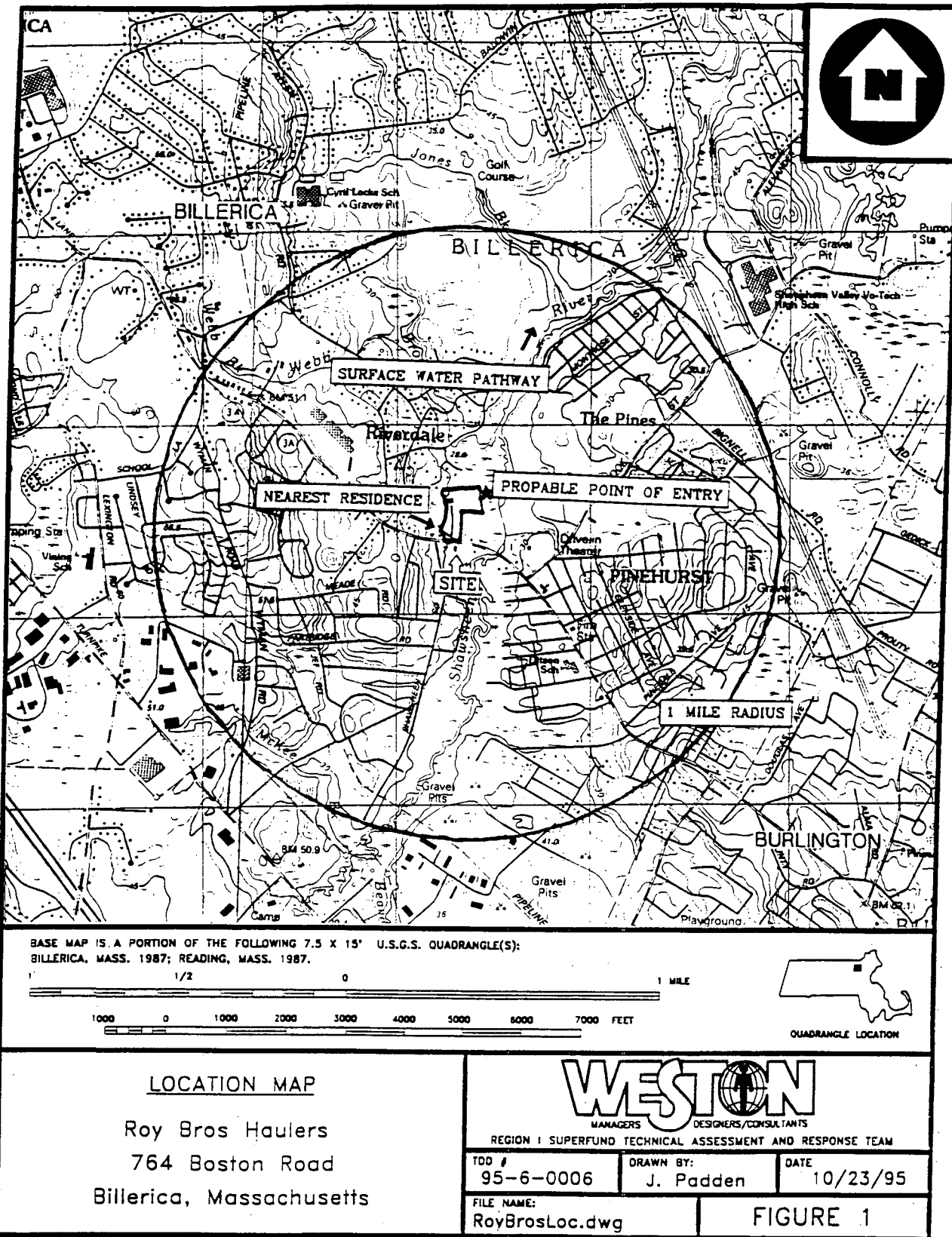
From the southern edge of the property extending to the southern side of the building, a 100-foot wide strip of the property is paved and used for temporary storage of tankers. The paved area continues around the eastern and northern sides of the building. These paved areas extend approximately fifty feet from the building. Empty tankers line the eastern edge of the property. These tankers are stored off the paved area. The property beneath the tankers is sparsely vegetated.

North of the building, an empty tanker serves as an above ground storage tank (AST) for leftover tank residue. The AST is a double-walled tank with several exterior panels rusting off. Only two sides of the AST display proper labels for hazardous waste storage. Several dents in the sides of the AST are visible. The AST is raised on blocks within an uncovered steel moat. The area of the steel moat is 525 square feet. Within the moat, standing water has a stained red tint. An open drainage pipe outfall lies at surface level in the northwest corner of the moat. An approximately 1 square foot area of stained soil is adjacent to the outfall pipe.

On September 20, 1995, Roy F. Weston, Inc., (WESTON®) Region I Superfund Technical Assessment and Response Team (START) personnel performed a on-site reconnaissance of the Roy Bros property. An area, 1,440 square feet, of blackened surficial soil was observed south of the former eastern lagoon area. This area was reportedly the recent location for a short-term sandblasting operation. A old trailer north of the building contained bags of "Black Beauty", a sand blasting material. The constituents of this blackened soil and "Black Beauty" are unknown.

START personnel observed 6 of the 7 monitoring wells located on the property. Monitoring wells 1, 2, 3, 4, and 5 were installed in May of 1986 by Guild Drilling Co., Inc. The monitoring wells were installed to a maximum depth of 27 feet. The maximum depth to the aquifer was determined to be 7 feet. According to the Paulding Company, the direction of groundwater flow was estimated to be to the east. Wells 1, 2, and 3 were located adjacent to the abutting wetlands along the eastern border of the property. Wells 1 and 2 have flushmounts and appear to have questionable seals. The exact location and present condition of well 3 is not known. Well 4 is positioned in the location of the former eastern lagoon area. Well 5 is located in the vicinity of the former western lagoon area and is in poor condition. Wells 6 and 7 were installed in the spring of 1995. This well is located east of the moat approximately 15 feet north of the building. Well 6 is locked and appears in good condition. Near well 6, two soil gas pit vents extend out of the ground. A steel cover provides shelter to the two vents. Well 7, located downgradient of well 6, is locked and appears in good condition.

Several potential sources of contamination are located on the property: two former lagoon areas, two former locations of a fuel underground storage tank (UST), a "burn area", and a former pile of cemented sludge. One former lagoon with an area of 6,000 square feet is located east of the building. The other lagoon is located off the southwest corner of the building in the location of an existing diesel fuel UST and is approximately 1,200 square feet. The locations of a former fuel UST are beneath the building and just north of the building, respectively. The exact



location of the cemented sludge pile is unknown, but likely has been removed from the property. The "burn area," approximately 5,600 square feet, is located between the building and the former eastern lagoon. In this area, debris ranging from oil filters to office supplies were deposited into a trench and burned.

The property is easily accessible to the public. No visible security measures exist. The neighboring wetlands provide a natural barrier to access on the northern and eastern boundaries of the property. The nearest residence to the property is located on the western boundary of the property, 210 feet southwest of the former western lagoon area [2]. The nearest school, the Ditson School, is located on Boston Road approximately 0.6 miles southeast of the property.

### **1.3 Operational and Regulatory History and Waste Characteristics**

Since 1948, Roy Bros has transported liquid and dry industrial chemicals. Roy Bros operates a fleet of 120 tanker trucks and 25 tractors. The substances hauled include chromium, benzene, toluene, methyl ethyl ketone, and 1,1,1-trichloroethane. The tanker trucks are cleaned on the property after each load. Process wastewaters are generated by the rinsing of the interior and exterior of the tanker trucks with water and detergent.

Prior to 1969, the effluent washwater was discharged to a 1,000 gallon septic drywell located north of the building. Sludge and other residues collected from the rinsing process were dumped in an unlined lagoon area located east of the main building. In 1969, the drywell was converted to a grease trap and the washwater was discharged into the existing lagoon area.

Toward the end of 1975, MA DEP became aware that Roy Bros Haulers was hauling hazardous wastes. Upon being notified of the Hazardous Waste Regulations, Roy Bros Haulers applied for and obtained a 1976 license for conveyance of hazardous waste.

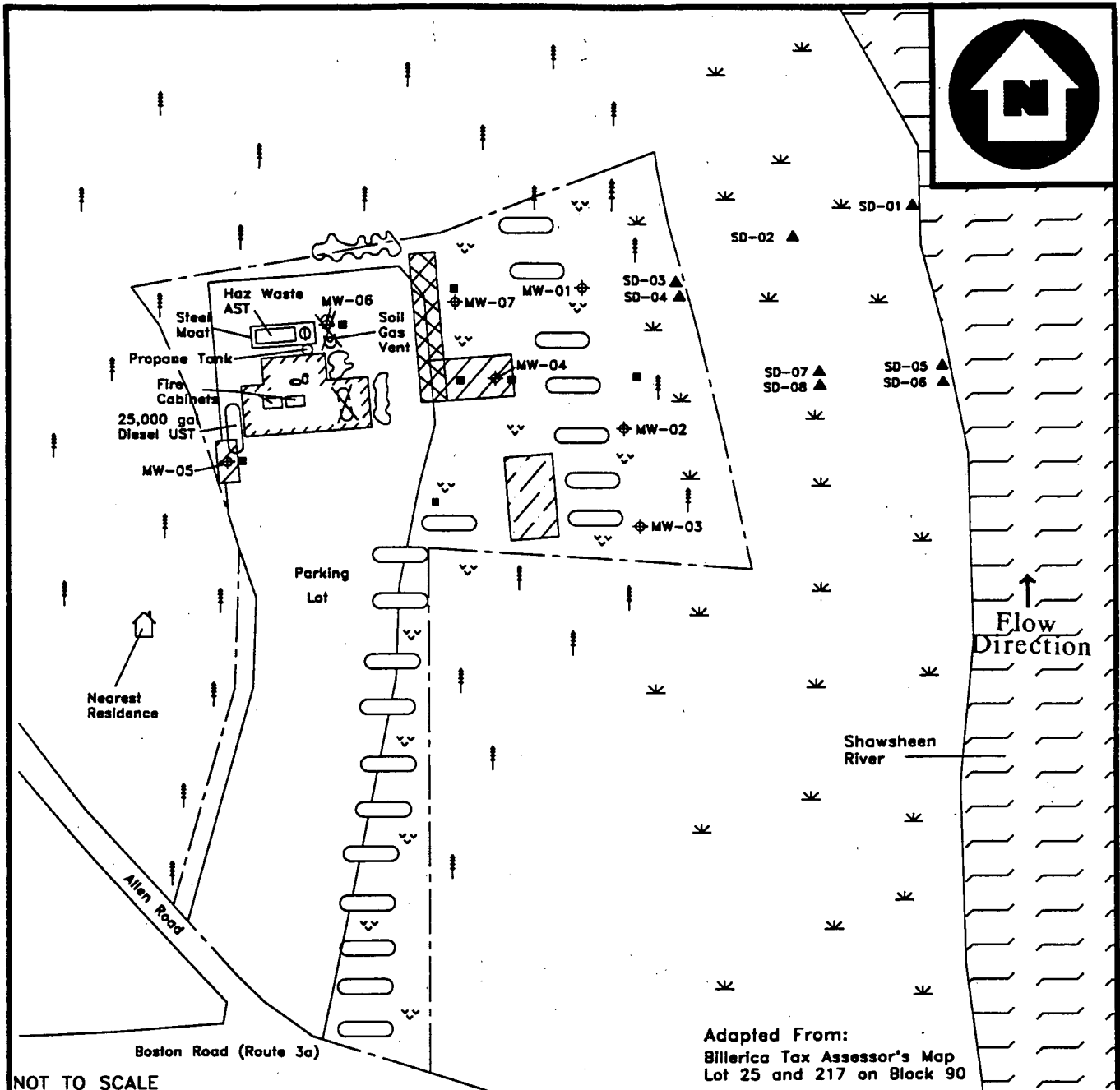
Beginning in 1976, the process wastewaters were discharged into two unlined, infiltration lagoons located immediately west of the building. The location of this disposal area was determined under the supervision of MA DEP.

Several inspections conducted by MA DEP in the Spring of 1976 revealed problems of wastewater disposal, chemical spillage, and undiked storage tanks. In July of 1976, Roy Bros' hazardous waste hauling license was revoked. An administrative Order was issued requiring clean-up, elimination of discharge to the Shawsheen River, and upgrading of the subsurface disposal system. MA DEP issued a Modified Order involving the construction of pretreatment facilities by December 1977.

Coastal Services, Inc., contracted by Roy Bros, removed and disposed of the contaminated contents of the easterly-located lagoons on April 28, 1977.

On March 23, 1978, MA DEP approved plans for a pretreatment facility for Roy Bros [25]. Once on-line, Roy Bros was to immediately begin a sampling program and apply for sewer tie-in with the Town of Billerica.

MA DEP inspected Roy Bros on August 30, 1979 to examine the recently installed treatment plant. The treated effluent was being discharged to the existing sand pit without proper MA



NOT TO SCALE

	Tanker Truck		Woods		Scrap Pile		Property Line
	Former Drywell		Grass		Former Surface Impoundment		Burn Area
	MONITORING WELL (SCREENED IN OVERBURDEN)		Wetlands		Sandblasting Area		55-GALLON DRUMS
	Proposed Sediment Sample Location		Pauling Soil Sample Location		FORMER UST LOCATION		

### SITE MAP

Roy Brothers Haulers  
764 Boston Road  
Billerica, MA



REGION 1 SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #  
95-06-0006

DRAWN BY:  
J. Padden

DATE  
11/9/95

FILE NAME:  
ROYBROS.DWG

FIGURE 2

DEP approval. In addition, sludge was collected in drums, pumped into Roy Bros tanker trucks, and hauled to Cannon Engineering for incineration. No documentation concerning disposal is known to exist.

On March 18, 1980, Roy Bros was denied a permit for connection to the Billerica sewer system based on high Biochemical Oxygen Demand (BOD) concentrations in the effluent wastewater. The wastewater concentrations were measured at 4,000 to 6,000 mg/L. The normal BOD concentration for domestic wastewater in Billerica was about 200 mg/L.

On November 17, 1980, the U.S. Environmental Protection Agency (EPA) identified Roy Bros Haulers, through a Surface Impoundment Assessment report, as a potential hazardous waste site. The reason cited for its identification was the presence of an unlined lagoon area which could contribute to groundwater contamination.

On February 6, 1981, a MA DEP inspection revealed that all grit, skimming, and sludge from the pretreatment facility were either "stored" or disposed on site. Three tanker trucks were on the property filled with sludge. Roy Bros combined the sludge with portland cement and dump it on the ground. Two large piles were observed to the east of the building at the time of the inspection. Visible contamination of the ground and surface runoff which drain into the nearby Shawsheen River was evident. Numerous drums, containing rinsing residues from the truck cleaning operations, were found on the ground to the east of the building. Some of the drums were leaking and overflowing onto the ground.

On February 13, 1981, MA DEP collected source samples of the cemented sludge pile, the lagoon, the abutting wetlands, and standing water on the Roy Bros property. The results indicated elevated levels of acetone, toluene, ethyl benzene, xylenes, and methyl ethyl ketone at each sample location.

Additional samples were collected by MA DEP on the property on February 24, 1981 to determine the possible environmental impacts from the company's operation. Three surface water samples were collected along the Shawsheen River at the following locations: upstream of the property, at the probable point of entry, and near the intake for the Burlington Water Treatment Plant, which is located approximately 1.4 miles downstream of the property. Analytical results revealed traces of 1,1,1-trichloroethane in samples from each location. During the inspection, Mr. Maurice Roy of Roy Bros indicated that the sludge was being taken away by Maine Coastal. No documentation concerning disposal is known to exist.

On December 15, 1981, MA DEP performed a Preliminary Assessment (PA) for the EPA on Roy Bros. The PA indicated that the waste from Roy Bros was in both liquid and sludge form, and had toxic, flammable, and highly volatile characteristics. Contamination to the groundwater, surface water, and soil were listed as potential hazards.

On April 21, 1983, a MA DEP inspection of Roy Bros revealed the following: a tanker truck being used for temporary sludge storage and one "cemented sludge" pile found along the northern edge of the property. The tanker truck was reportedly emptied twice a month by a licensed hazardous waste hauler; however, no manifest documentation was produced.

On February 21 and 22, 1984, the Federal Highway Administration (FHA) performed a Safety Management Audit of Roy Bros. The audit indicated that Roy Bros transported chemicals for following suppliers: Mobil, Exxon, Monsanto, Polyvinyl Chemical, George Mann, Reichhold Chemical, DowChemical, and Cargill. The audit revealed that manifests existed for the transportation of generated hazardous waste liquid not otherwise specified (NOS), waste solvent NOS, and waste oil NOS. The manifests indicated that the primary transporter for shipments was Suffolk Services.

On February 26, 1985, MA DEP inspected the company's truck washing and waste treatment process. The inspection indicated that, before washing, any residue left in the trailer was drained into a 55-gallon drum. Two dozen drums were observed in the two wash bays. The contents of these drums were pumped into an unregistered white, double-lined tanker kept in the front yard. Two other non-registered 5,500 gallon tankers were parked in the back yard; each about two-thirds full. Neither of these tankers were properly marked and labeled. An uncovered cemented sludge pile was observed in the east back yard during the 1985 inspection.

On March 5, 1985, samples were collected by EPA during a RCRA Industrial Survey of the property. Analysis of the samples showed that the contents of 3 of the 5 tankers and an open drum were considered hazardous based on ignitibility. Mr. Maurice Roy stated that Roy Bros has been storing waste on-site for over two years in three tankers. Further analysis by EPA indicated that the waste in 2 of the 3 tankers was shown to be hazardous. EPA reviewed manifests from Roy Bros in which 16 of the facility signed copies could be located. EPA observed no site security alarms or communication systems in the yard.

On July 2, 1985, a Complaint, Compliance Order, and Notice of Opportunity for Hearing was issued to Roy Bros by EPA. The Order addressed non-compliance to numerous RCRA regulations by Roy Bros and included a civil penalty against Roy Bros.

Between April 30 and June 21, 1986, a hydrogeologic investigation of the Roy Bros was performed by the Paulding Co. (Paulding). Five borings and five monitoring wells were installed on the Roy Bros property. Samples from each well were obtained on May 9, 1986 by Environmental Field Services, Inc. (EFS) and analyzed for priority pollutant metals, VOCs, and acid extractable organics. VOCs in the monitoring wells located in the former lagoon areas were detected at concentrations of 1 parts per million (ppm). The total concentration of VOCs in the water samples from the monitoring wells 1, 2, and 3 averaged less than 0.1 ppm. The concentrations of acid extractable organic compounds in the samples taken from wells 1, 3, 4, and 5 were below detection levels, and, in well 2, the total concentration was 0.02 ppm. Leak-testing was conducted on the two buried 1000-gallon concrete tanks used to collect and temporarily store the wash waters from the truck-washing operations. The maximum leak rate was equal to 0.00245 gal/hour. According to Paulding, the tanks were considered leak-tight based on National Fire Protection Standards.

A Site Inspection (SI) for Roy Bros was completed by NUS Corporation/Field Investigation Team (NUS/FIT) in 1988. The SI concluded that, although a removal operation took place, the potential for direct contact still exists.

On September 11, 1992, American Environmental Laboratories, Incorporated (AEL), collected



groundwater samples at a series of locations on the Roy Bros property. Unfiltered groundwater samples were collected from monitoring wells 1, 2, 3, 4, and 5. These samples were tested for priority pollutant metals, VOCs, and acid extractable organics. Analytical results indicated that the concentration of metals were below detection limits. Neither VOCs nor acid extractable organics were detected in the samples from the wells.

An additional round of sampling was performed by AEL on June 21, 1993. Again, the same wells were sampled for priority pollutant metals, VOCs, and acid-extractable compounds. Analytical results for well 5 revealed the existence of xylenes and ethylbenzene at levels of 112 and 655 ppm, respectively. Also, 67.4 parts per billion (ppb) of bis(2-ethylhexyl)phthalate (BEHP) and 28.1 ppb of di-n-butylphthalate was detected in groundwater samples from well 5. No priority metals were detected in any of the groundwater samples from the wells.

In July of 1993, Paulding submitted a request to the MA DEP for the removal of the Roy Bros from the MA DEP's List of Confirmed Disposal Sites and Locations to be Investigated.

On April 14, 1994, Mr. Leo Roy of Roy Bros submitted a Response Action Outcome (RAO) statement to the MA DEP. In conjunction with the RAO Statement, Paulding provided a LSP Evaluation Opinion Transmittal Form indicating that a observed release may have occurred at the location but the response actions were completed prior to the date of the opinion.

On December 20, 1994, MA DEP informed Roy Bros that an audit of several response actions undertaken on the property would be conducted. The audit was intended to ensure the response actions were conducted according to Massachusetts Contingency Plan (MCP) and other relevant laws and regulations.

On March 13, 1995, the results of the Roy Bros audit were submitted by MA DEP. The results identified deficiencies in the response actions conducted at Roy Bros. The audit revealed the need for further investigation due to the lack of sufficient data for the soil and nearby surface water targets.

Paulding collected soil samples on May 18, 1995 during the advancement of test borings by Soil Exploration Corporation. The samples were analyzed by IEA for priority pollutant metals, VOCs, and acid-extractable compounds. Elevated levels of bis(2-ethylhexyl)phthalate were detected in a majority of the samples.

Groundwater samples were collected on June 1, 1995 by Geologic Field Services. The samples were analyzed for priority pollutant metals, VOCs, and acid-extractable compounds. Two additional wells, 6 and 7, were installed on the property. Elevated levels of vinyl chloride were detected in the groundwater sample from well 6.

## **2.0 PREVIOUS WORK AT THE SITE**

- MA DEP, site inspection, 1969-1995.
- Coastal Services, Inc., Excavation and Removal of Former Eastern Lagoon Area, April 28, 1977.

- MA DEQE, EPA Potential Hazardous Waste Site Discovery, March 18, 1980.
- MA DEQE, EPA Potential Hazardous Waste Site Preliminary Assessment (PA), December 15, 1981.
- Maine Coastal, Removal of Sludge from Property, 1981 - present.
- Suffolk Services, Removal of Sludge from Property, 1981 - present.
- FHA, Safety Management Audit, February 21, 1984.
- EPA, RCRA Industrial Survey, March 5, 1985.
- Guild Drilling Co., Monitoring Well Installation, May 8, 1986.
- EFS, Groundwater Sampling, May 9, 1986.
- Resource Analysts, Inc., Sampling Analysis, May 12, 1986.
- Paulding, Hydrogeologic Site Investigation, July 18, 1986.
- NUS/FIT, EPA Potential Hazardous Waste Site Inspection (SI), March 2, 1988.
- AEL, Groundwater Sampling, September 11, 1992 and June 21, 1993.
- Soil Exploration Corporation, Inc., Soil Boring Advancement and Monitoring Well Installation, May 18, 1995.
- IEA, soil sampling, May 18, 1995.
- IEA, groundwater sampling, June 1, 1995.
- START, On-site Reconnaissance, September 20, 1995.

### **3.0 TRIP OBJECTIVE**

The objectives of the proposed Site Inspection Prioritization (SIP) sampling are to collect appropriate analytical data to confirm or identify hazardous substances at the site and investigate whether the substances have impacted human health and the environment. To date, a file review has been completed and an on-site reconnaissance of the property was performed by WESTON personnel on September 20, 1995. Based on existing historical information, visual observations made during the on-site reconnaissance, and an evaluation of data gaps such as surface water target sampling, this proposed plan calls for sampling of the adjacent wetland area along the surface water pathway.

## **4.0 PERSONNEL**

<b><u>Name</u></b>	<b><u>Role</u></b>
Jack Padden	Field Sampling Team / Site Leader
Lisa LaForge	Field Sampling Team / Site Health and Safety Coordinator (SHSC)

## **5.0 TECHNICAL APPROACH**

### **5.1 On-site Reconnaissance**

An on-site reconnaissance was conducted at the property on September 20, 1995. During the on-site reconnaissance, START personnel Mr. Jack Padden and Mr. Joseph Schmidl interviewed the site owner, inspected the property for potential source areas, and conducted an on-site reconnaissance of the property. The On-site Reconnaissance Checklist (Table 1) was used during the reconnaissance. Potential sampling locations were marked with orange pin flags. Proposed locations are shown on Figure 2.

### **5.2 Sampling**

1. The field team will establish a command post upwind of suspected source areas, if possible.
2. The Site Health and Safety Coordinator (SHSC) will perform calibration check of monitoring instruments.
3. The samplers will collect samples while the Site Leader documents activities in the logbook, completes Contract Laboratory Program (CLP) forms, and assists with decontamination of the sampling equipment between sampling locations.

Eight sediment sample locations have been selected based on available background information and visual observations made during the on-site reconnaissance (Figure 2). These locations may vary based on site conditions and characteristics (Table 2). Additional on-site visual observations and field screening methods may also necessitate additional sampling. After sampling locations have been identified, START personnel will measure the distance and direction of the selected sampling locations to the nearest fixed reference point on-site.

#### **5.2.1 Source Sampling**

Source sampling is not warranted at this time. Recent sampling events on the property have identified the location and constituents of the hazardous substances of the various sources. Results from the June 1995 sampling indicate elevated levels of contamination in the former eastern and western lagoon areas and in the vicinity of the former drywell and fuel UST.

**Table 1**

**On-site Reconnaissance Checklist**

1. Verify location of property on a U.S. Geological Survey topographic map.
2. Monitor ambient air in accordance with the Site Health and Safety Plan.
3. Draw a site sketch of the property.
4. Determine the approximate physical dimensions of any on-site sources (length, width, height, depth).
5. Note the quantity, contents (if labelled), and condition of any source areas.
6. Note any containment features which would prevent migration from sources to air, groundwater, and surface water.
7. Determine whether there are any barriers limiting access to the source areas of contamination.
8. Determine the distance to the closest regularly occupied building, as measured from any on-site source which might emit contaminants to the air.
9. Determine the number of residences, schools, and day-care facilities located within 200 feet of source areas.
10. Locate and note the condition of all on-site monitoring wells (if applicable).
11. Look for evidence of surface soil contamination, such as stained soil or leachate outbreaks.
12. Note any stressed vegetation.
13. Determine overland path to the surface water.
14. Identify, measure, and flag sample locations based on site conditions.
15. Determine the number of on-site employees.
16. Determine the location of the nearest private well.
17. Note all processes that have occurred on-site.
18. Note all chemicals used in processes.
19. Note other off-site potential sources of contamination.

**Table 2**  
**Sample Rationale**

Sample Location	Description/Rationale
<b>MATRIX: Sediment</b>	
SD-01	Grab, approximately 510 feet into wetland, on west bank of Shawsheen river, depth $\leq$ 2 feet.
SD-02	Grab, approximately 264 feet into wetland, depth $\leq$ 2 feet (matrix spike/matrix spike duplicate).
SD-03	Grab, on edge of wetland, approximately 240 feet east of northeast corner of building (PPE), depth $\leq$ 2 feet.
SD-04	Duplicate of SD-03 for quality control.
SD-05	Grab, approximately 200 feet upstream of SD-01, depth $\leq$ 2 feet, reference sample for quality control.
SD-06	Grab, approximately 200 feet upstream of SD-01, depth $\leq$ 2 feet, reference sample for quality control.
SD-07	Grab, approximately 200 feet south of SD-02, depth $\leq$ 2 feet, reference sample for quality control.
SD-08	Grab, approximately 200 feet south of SD-02, depth $\leq$ 2 feet, reference sample for quality control.
<b>MATRIX: Aqueous</b>	
RB-01	Sediment sampling equipment rinsate blank, collected for quality control
TB-01	Trip blank for quality control
<b>MATRIX: Performance Evaluation</b>	
PE-01	Performance Evaluation (PE) sample for low to medium concentration volatile organic compounds in water.
PE-02	PE sample for low to medium concentration semivolatile organic compounds in water.
PE-03	PE sample for low to medium concentration pesticides in water.
PE-04	PE sample for low to medium concentration metals in soil.
PE-05	PE sample for low to medium concentration cyanide in water.

### **5.2.2 Groundwater Pathway Sampling**

No groundwater samples will be collected during this sampling event. In July of 1995, samples were collected from monitoring wells 4 and 5, located in the vicinities of the former western and eastern lagoons areas, respectively. Also, two additional monitoring wells were installed on the property and sampled. Each sample was analyzed for VOCs, semi-volatile organic compounds (SVOCs), and priority pollutant metals. This round of sampling provides sufficient data on the extent and migration of contaminants along the groundwater pathway.

### **5.2.3 Surface Water Pathway Sampling**

Eight sediment samples will be collected in the adjacent wetland and the nearby Shawsheen River. Each sample will be gathered using the grab technique. The sampling locations were previously described in Table 5.2 of this plan. Water quality parameters (pH, temperature and conductivity) will be noted in the field logbook for each surface water sample. These sample locations were chosen to evaluate whether a release to the surface water pathway has occurred and whether the adjacent wetland and nearby Shawsheen River have been impacted. Sediment samples will be collected using a stainless steel auger and stainless steel spoons and scoops. Sample collection will proceed in a downstream to upstream direction in order to prevent cross-contamination of sediment samples.

### **5.2.4 Soil Exposure Pathway Sampling**

No additional soil sampling is warranted at this time. Adequate sampling at various locations on the property occurred in June of 1995. This sampling event consisted of the advancement of test pits and soil borings in the location of the former lagoon areas and subsequent area downgradient of sources. Each sample was analyzed for VOCs, SVOCs, and priority pollutant metals. The results indicated a observed release along the soil exposure pathway.

### **5.2.5 Quality Assurance and Analysis**

Three samples will be obtained for quality assurance and quality control (QA/QC) for this sampling event. SD-04 will serve as a duplicate of SD-03. For quality control purposes, SD-02 will serve as the matrix spike / matrix spike duplicate. A field rinsate sample (RB-01) will be collected using HPLC water for organic analyses and deionized water for inorganic analyses. A trip blank (TB-01) will be included with samples during transportation.

Samples will be analyzed for VOCs, SVOCs, pesticide/polychlorinated biphenyls (PCBs), total metals, and cyanide. The trip blank will be analyzed for VOCs only. Table 3 identifies sample bottles/vials/jars by analysis and container size for each sample. The samples will be sent by courier or delivered to a predesignated CLP laboratory.

## **6.0 PROCEDURE**

Activities will be conducted in accordance with the site specific Health and Safety Plan (HASP) which will accompany the field team to the site, and applicable standard operating procedures (SOPs). Copies of the SOPs will also accompany the field team.

## **7.0 DECONTAMINATION**

Decontamination will be conducted in accordance with the HASP and applicable SOPs, and will consist of the following: wash with alconox and water, rinse with distilled water, rinse with isopropanol, rinse with DI water, and air dry equipment.

## **8.0 DOCUMENTATION**

Photographs will be taken to document site conditions. The location and direction from which photographs are taken will be noted in the field logbook, in accordance with the scope of work. Field observations will be recorded in the logbook, including description of sampling locations and any deviations from the Task Work Plan. Chain-of-custody will be maintained until samples are relinquished to a courier or to the laboratory assigned to perform the analyses.

## **9.0 SAFETY CONSIDERATIONS**

Physical hazards identified in or around the property include due to slips, trips, and falls, and heavy traffic due to trucking operations. Careful observation of surroundings will minimize risk to field personnel. Buddy system will be enforced to further reduce risks. Field activities will follow the site HASP which further addresses the safety considerations for the property.

Table 3

## Sample Analysis/Bottle Type/Preservation

Location	Sample Bottles	Analysis	Preservation
<b>MATRIX: Sediment</b>			
SD-01	2 x 40 mL vials 1 x 8 oz glass jar 1 x 4 oz amber jar 1 x 4 oz amber jar	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	Ice Ice Ice Ice
SD-02	2 x 40 mL vials 2 x 8 oz glass jar 1 x 4 oz amber jar 1 x 4 oz amber jar	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	Ice Ice Ice Ice
SD-03	2 x 40 mL vials 1 x 8 oz glass jar 1 x 4 oz amber jar 1 x 4 oz amber jar	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	Ice Ice Ice Ice
SD-04	2 x 40 mL vials 1 x 8 oz glass jar 1 x 4 oz amber jar 1 x 4 oz amber jar	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	Ice Ice Ice Ice
SD-05	2 x 40 mL vials 1 x 8 oz glass jar 1 x 4 oz amber jar 1 x 4 oz amber jar	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	Ice Ice Ice Ice
SD-06	2 x 40 mL vials 1 x 8 oz glass jar 1 x 4 oz amber jar 1 x 4 oz amber jar	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	Ice Ice Ice Ice
SD-07	2 x 40 mL vials 1 x 8-liter amber jars 1 x 1-liter poly bottle 1 x 1-liter poly bottle	VOCs SVOCs, Pest/PCBs Dissolved Metals Cyanide	Ice Ice Ice Ice
SD-08	2 x 40 mL vials 1 x 8-liter amber jars 1 x 1-liter poly bottle 1 x 1-liter poly bottle	VOCs SVOCs, Pest/PCBs Dissolved Metals Cyanide	Ice Ice Ice Ice
<b>MATRIX: Aqueous</b>			
RB-01	2 x 40 mL vials 4 x 1-liter amber jars 1 x 1-liter poly bottle 1 x 1-liter poly bottle	VOCs SVOCs, Pest/PCBs Total Metals Cyanide	HCl pH <2*, Ice Ice HNO <sub>3</sub> pH <2, Ice NaOH pH >12, Foil Wrap, Ice



Table 3

**Sample Analysis/Bottle Type/Preservation**  
(concluded)

Location	Sample Bottles	Analysis	Preservation
TB-01	2 x 40 mL vials	VOCs	HCl pH <2*, Ice

\*Sample bottles will be pre-preserved with 5 to 7 drops of HCl.

mL = Milliliter.

oz = Ounce.

Pest/PCBs = Pesticide/Polychlorinated biphenyl compounds.

SVOCs = Semivolatile organic compounds.

VOCs = Volatile organic compounds.



Roy F. Weston, Inc.  
Federal Programs Division  
217 Middlesex Turnpike  
Burlington, Massachusetts 01803-3308  
617-229-6430 • Fax 617-272-3619

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM  
EPA CONTRACT 68-W5-0009

17 November 1995  
11098-001-001-1055-30

Mr. Harish Panchal  
Bureau of Waste Site Clean-up  
Massachusetts Department of Environmental Protection  
1 Winter Street  
Boston, MA 02108

Subject: Task Work Plan  
Roy Bros Haulers  
Billerica, Massachusetts  
CERCLIS No. MAD009870643  
TDD No. 95-06-0006

Dear Mr. Panchal:

Enclosed please find one copy of the Task Work Plan for the Roy Bros Haulers property in Billerica, Massachusetts. A second copy has been forwarded to the appropriate regional contact under a separate cover. Comments are due to the U.S. Environmental Protection Agency (in writing, or by telephone or telecopy) within one week of receipt.

Please call me or Ms. Jocelyn Boesch at (617) 229-6430 if you have any questions regarding this Task Work Plan.

Very truly yours,

ROY F. WESTON, INC.

Jack Padden  
Region I START  
Site Leader

jap

Enclosure

cc: C. Coolen (MA DEP)  
J. Boesch (WESTON Project Leader)  
S. Hayes (EPA Task Monitor)



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217 Middlesex Turnpike  
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SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM  
EPA CONTRACT 68-W5-0009

17 November 1995  
11098-001-001-1055-30

Ms. Sharon M. Hayes  
EPA Task Monitor  
U.S. EPA, Region I  
Superfund Support Section (HSS-CAN-7)  
John F. Kennedy Federal Building  
Boston, MA 02203

Subject: Task Work Plan  
Roy Bros Haulers  
Billerica, Massachusetts  
CERCLIS No. MAD009870643  
TDD No. 95-06-0006

Dear Ms. Hayes:

Enclosed please find enclosed an original Task Work Plan for the Roy Bros Haulers property in Billerica, Massachusetts.

Please call me or Ms. Jocelyn Boesch at (617) 229-6430 if you have any questions regarding this Task Work Plan.

Very truly yours,

ROY F. WESTON, INC.,

Jack Padden  
Region I START  
Site Leader

jap

Enclosure

cc: J.Boesch (WESTON Project Leader)